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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,330	06/25/2003	Linda A. Riedle	RPS920030086US1	2772
47052 7590 07/31/2007 SAWYER LAW GROUP LLP PO BOX 51418 PALO ALTO, CA 94303			EXAMINER CHANG, JULIAN	
			ART UNIT 2152	PAPER NUMBER
			MAIL DATE 07/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/603,330	Applicant(s) RIEDLE, LINDA A.	
	Examiner Julian Chang	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 19 is/are rejected.
- 7) ☒ Claim(s) 2-18 and 20-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>06/25/03</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This Office action is responsive to communication filed on 06/25/2003.

Claims 1-24 are pending, and have been examined below.

Drawings

2. The drawings were received on 10/27/2003. These drawings are not acceptable. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

Claim Objections

3. Claims 1, 2, 7, 19 and 20 are objected to because of the following informalities: Grammatical errors in the preamble of the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly

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connected, to make and/or use the invention. Claims 1 and 9 recite "determining, by the clients during the multicast transfer, which is a slowest client". This limitation implies that the master client also performs such a determination. However, the disclosure only shows how passive clients determine which client is the slowest client.

5. Claims 2-18 and 20-24 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Subject matter critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

Applicant claims a system and method for determining which client is the slowest client, and making the slowest client the master client. Applicant goes on to disclose steps performed by the passive clients to determine which of the passive clients is the slowest client.

Applicant's disclosure does not address the scenario where the master client remains the slowest client, and a master change is not needed. In other words, the disclosure is unclear as to what occurs when the master client is the slowest client. When the master client is the slowest client, a master change is not needed, and the sending of a Force Master command would also be unnecessary.

Applicant states that their method minimizes master changes. However, without the essential subject matter described above, the method would perform unnecessary master changes.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 13-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 13, applicant fails to distinctly claim how a master client controls the multicast transfer of the packets.

Claim Rejections - 35 USC § 103

7. Claims 1 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizzo (pgmcc: a TCP-friendly single-rate multicast congestion control scheme).

8. Regarding claims 1 and 19, Rizzo teaches a method comprising:
determining, by the clients during the multicast transfer, which is a slowest client based on which client drops a highest number of packets (page 19, section 3.2); and

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making the slowest client the master client, thereby adaptively determining which client becomes the master client to minimize network traffic (page 21, 'elected acker will control the throughput of the session through its feedback, so we want to switch to a new one when its maximum throughput will be lower than the one of the current acker').

In Rizzo, the clients take part in the election process by sending Receiver reports to the sender. Since the clients take part in the determination, the claim limitations are met in the broadest reasonable interpretation.

Allowable Subject Matter

9. Claims 2-6 and 20-24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. Claims 7-18 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

11. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 2, 7, 13 and 20, the prior art of record fails to reasonably teach, singly or in combination, sending a Force Master command from the "slowest" client to a server to request to become the new master client.

Li, et al (ORMCC: A Simple and Effective Single-Rate Multicast Congestion Control Scheme, 2002), the closest prior art of record, teaches the use of client feedback to determine the slowest client. ORMCC compares average Throughput Rate at Congestion (TRAC) metrics of all receivers to determine the slowest ones, and chooses one of them as the Congestion Representative (CR). The TRACs are measured at receivers upon packet losses. Clients having average TRACs low enough to qualify them as a CR will then send in Congesting Indications with TRAC ($CI(\mu)s$). By only having clients meeting such a requirement send in $CI(\mu)s$, ORMCC is able to provide feedback suppression, and to determine the slowest client without knowledge of all clients.

In ORMCC the clients send feedback to the server, who then determines, based on all feedback received, which is the slowest client. The present claims distinguish over ORMCC by determining the slowest client at the passive clients, and, when a passive client determines itself as the slowest client, the slowest client sends a Force Master command to the server to become the new master client.

Conclusion

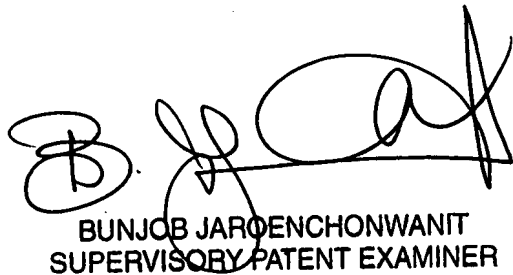
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Chang whose telephone number is (571) 272-8631. The examiner can normally be reached on Monday thru Friday 8am to 4pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JC



BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER

7/24/17